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INTERNATIONAL SEARCH REPORT

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(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference <b>TMP-2034 PCT</b>	<b>FOR FURTHER ACTION</b> see Form PCT/ISA/220 as well as, where applicable, item 5 below.	
International application No. <b>PCT/US2004/006377</b>	International filing date (day/month/year) <b>02/03/2004</b>	(Earliest) Priority Date (day/month/year) <b>15/04/2003</b>
Applicant <b>TDY INDUSTRIES, INC.</b>		

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 6 sheets.

☒ It is also accompanied by a copy of each prior art document cited in this report.

1. Basis of the report

a. With regard to the **language**, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ The international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

b. ☐ With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, see Box No. I.

2. ☐ **Certain claims were found unsearchable** (See Box II).

3. ☐ **Unity of invention is lacking** (see Box III).

4. With regard to the **title**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established by this Authority to read as follows:

5. With regard to the **abstract**,

☐ the text is approved as submitted by the applicant.

☒ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. With regards to the **drawings**,

a. the figure of the **drawings** to be published with the abstract is Figure No. 3

☒ as suggested by the applicant.

☐ as selected by this Authority, because the applicant failed to suggest a figure.

☐ as selected by this Authority, because this figure better characterizes the invention.

b. ☐ none of the figures is to be published with the abstract.

# INTERNATIONAL SEARCH REPORT

International application No.

PCT/US2004/006377

Box No. IV Text of the abstract (Continuation of item 5 of the first sheet)

The present invention relates to embodiments of a cutting tool holder (10) having at least one insert pocket (13), wherein at least one insert pocket comprises a side surface (15) and at least one antirotation stop (16) protruding from the side surface.

The antirotation stop may comprise at least two substantially planar surfaces. In certain embodiments, the cutting tool holder may have a pocket which comprises a bottom surface and an antirotation stop having three substantially planar surfaces that are substantially perpendicular to the bottom surface. The antirotation stop may be integral to the tool holder or may be produced separately and attached, either permanently or temporarily, to the tool holder. Embodiments may further comprise additional antirotation stops as desired by the machining application.

In one embodiment, the cutting tool holder includes an insert pocket in the tool holder and at least one antirotation stop protruding from at least one of a side wall and the bottom surface of the insert pocket, wherein the antirotation stop comprises at least two substantially planar surfaces.

A cutting insert (12) may be secured in the tool holder, wherein the cutting insert has a recess (17) having a shape that is non-complementary to the shape of the antirotation stop and may be made from tungsten based carbide or cermet.

# INTERNATIONAL SEARCH REPORT

national Application No  
PCT/US2004/006377

## A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 B23C5/22

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 B23B B23C

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 4 679 968 A (HASEGAWA RYOEI ET AL) 14 July 1987 (1987-07-14)	1-12, 14-26, 28
Y	figures 1, 2, 9, 17-19	13, 27
X	EP 1 013 365 A (PLANSEE TIZIT AKTIENGESELLSCHA) 28 June 2000 (2000-06-28)	1, 2, 5-12, 14-20, 22-26, 28, 32, 33
	figures 3-5	
X	DE 42 44 316 A (KRUPP WIDIA GMBH) 30 June 1994 (1994-06-30)	17-19, 29-31
Y	column 3, lines 40-48; figures 1-3	13, 27
X	US 2003/059262 A1 (MEN YURI) 27 March 2003 (2003-03-27)	30, 31
	paragraph '0101!; figures 4, 6, 10	
	-/--	



Further documents are listed in the continuation of box C.



Patent family members are listed in annex.

\* Special categories of cited documents:

- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier document but published on or after the international filing date
- "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the international filing date but later than the priority date claimed

- "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- "&" document member of the same patent family

Date of the actual completion of the international search

9 July 2004

Date of mailing of the international search report

19/07/2004

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national Application No <b>PCT/US2004/006377</b>
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## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 6 164 878 A (SATRAN AMIR ET AL) 26 December 2000 (2000-12-26) figures 3-6 -----	1-29
A	US 6 017 171 A (KARLSSON ROLF) 25 January 2000 (2000-01-25) abstract; figures 1-3,5 -----	32,33

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Information on patent family members

National Application No

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### Information on patent family members

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Form PCT/ISA/210 (patent family annex) (January 2004)